

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A computer-implemented method of implementing a subject specific search engine to compile and access subject specific information, associated with a predefined particular subject, from a computer network, the method comprising the steps of:

traversing links between websites comprising one or more objects on the computer network, by said search engine, the objects respectively comprising at least one of: one or more web pages comprising the websites; and one or more components comprising any one or more of said web pages, the objects comprising at least one of: words, terms and expressions;

filtering, by said search engine, subject specific content of each said object visited to determine a relevance of said subject specific content thereof to said predefined particular subject, wherein said filtering comprises:

(a) decomposing said objects into one or more said components;

(b) ~~generating~~receiving a lexicon, said lexicon comprising subject specific terminology deemed relevant to the predefined particular subject, the subject specific terminology comprising respective words, terms and expressions;

(c) comparing said decomposed components of said objects to said subject specific terminology of the lexicon to determine whether each said object is a subject specific relevant object, wherein said comparing comprises:

(i) assigning a weight to each of said words, terms and expressions comprising the subject specific terminology of the lexicon;

(ii) if a said word, term or expression comprising the object matches a corresponding said word, term or expression comprising the subject specific terminology of the lexicon, adding a corresponding weight thereof to a cumulative total; and

(iii) determining any of said objects to be a subject specific relevant object if the cumulative total surpasses a predefined threshold value;

(d) based upon said comparing, determining all objects deemed to be subject specific relevant as objects to be saved;

presenting for an indexing operation at said search engine, each object determined to be subject specific relevant to said particular subject based upon said filtering;

indexing and storing said subject specific relevant objects in a searchable database; and

assigning a word score to each word appearing on each subject specific relevant object;

wherein said assigning a word score comprises the steps of:

determining all websites found in the database that contain links to the website;

for each word on the websites, assigning a word score for that word based at least in part on its presence on each website containing a link to the website; and

increasing the word score for each website containing a link to the website when the word appears in close proximity to the link.

2 - 7. (Canceled)

8. (Previously presented) The method according to Claim 1, wherein said step (d) further comprises:

discarding all objects determined not to be subject specific relevant based upon said comparing.

9-23. (Canceled)

24. (Previously presented) The method according to Claim 1, wherein said filtering occurs prior to said presenting.

25. (Canceled)

26. (Previously presented) The method according to Claim 1, further comprising the step of:

replacing the lexicon with a lexicon corresponding to a different subject in order to present for said indexing operation a different set of subject specific relevant objects.

27. (Canceled)

28. (Previously presented) The method according to Claim 65, further comprising the steps of:

permitting a user to enter a query comprising user-preferred words, terms or expressions, wherein the steps of claim 1 are performed in response thereto.

29. (Previously presented) The method according to Claim 66, further comprising the step of: displaying information found in said step of searching.

30. (Previously presented) The method according to Claim 28, further comprising the step of:

determining a site ranking for each website associated with information found in said searching step.

31. (Previously presented) The method according to Claim 30, further comprising the step of:

displaying the results of the user query using the site ranking of the information found in the searching step to determine an order in which the results are displayed.

32. (Previously presented) The method according to Claim 31, wherein the step of displaying the results of the user query comprises the step of: displaying the results of the user query in a hierarchical format according to the site ranking.

33-35. (Canceled).

36. (Currently amended) The method according to Claim 33~~1~~, wherein the step of assigning word scores further comprises the step steps of:

determining all websites found in the database that contain links to the website; and

assigning a word score to each word on the website based at least in part on how many websites linking to the website also contain the particular word.

37. (Canceled)

38. (Currently amended) The method according to Claim 33~~1~~, further comprising the steps of:

entering a user query;

using the user query to search the database; and

computing a site ranking for each website associated with information found in said searching step, the site ranking being computed based on said word scores.

39. (Previously presented) The method according to Claim 38, wherein the step of computing a site ranking comprises the steps of:

for each website associated with information found in said searching step, summing the word scores for that website corresponding to words in the user query.

40. (Previously Presented) A computer-readable storage medium containing software code that, when executed by a processor, causes the processor to execute the method as claimed in Claim 1.

41. (Previously Presented) A system to implement a subject specific search engine for compiling and accessing information relevant to a particular subject from a computer network, the system comprising:

a processor; and

the computer-readable storage medium as claimed in Claim 40.

42. (Previously presented) The method according to Claim 1, wherein the filtering further comprises monitoring a depth for each said link, the depth being a reflection of relevance to said predefined particular subject.

43. (Previously presented) The method according to Claim 42, wherein said monitoring comprises:

for a given said object being visited resulting from said link, setting a said depth of any links leading from said object to other objects to a depth of a link traversed to reach the given object;

wherein said given object is determined to be relevant to said predefined particular subject, setting the depths of the links leading from said object to zero; and

wherein said given object is determined not to be relevant to said predefined particular subject, incrementing the depths of the links leading from said object.

44. (Previously presented) The method according to Claim 43, wherein said monitoring further comprises:

comparing the incremented depths to a predetermined maximum depth value;

wherein when the incremented depths exceed the predetermined maximum depth value, discarding the links leading from said given object;

wherein when the incremented depths do not exceed the predetermined maximum depth value, traversing one of the links leading from said given object.

45. (Canceled)

46. (Currently amended) A subject specific search engine system operable to compile and permit accessing of subject-specific information, associated with a predefined particular subject, from a computer network, the subject specific search engine system comprising:

a memory, connected to a host computer, for storing subject specific relevant objects;

~~a~~the host computer executing software stored upon a computer-readable storage medium, the software comprising:

a subject specific smart crawler of said search engine traversing links between websites comprising one or more objects on the computer network, the objects respectively comprising at least one of: one or more web pages comprising the websites; and one or components comprising any one or more of said web pages, the objects comprising at least one of: words, terms and expressions;

said subject specific smart crawler performing filtering, of subject specific content of each said object visited to determine a relevance of said subject specific content thereof to said predefined particular subject, wherein said filtering comprises:

(a) decomposing said objects into one or more said components;

(b) generating/receiving a lexicon, said lexicon comprising subject specific terminology deemed relevant to the predefined particular subject, the subject specific terminology comprising respective words, terms and expressions;

(c) comparing said decomposed components of said objects to said subject specific terminology of the lexicon to determine whether each said object is a subject specific relevant object, wherein said comparing comprises:

(i) assigning a weight to each of said words, terms and expressions comprising the subject specific terminology of the lexicon;

(ii) if a said word, term or expression comprising the object matches a corresponding said word, term or expression comprising the subject specific terminology of the lexicon, adding a corresponding weight thereof to a cumulative total; and

(iii) determining any of said objects to be a-subject specific relevant objects if the cumulative total surpasses a predefined threshold value;

(d) based upon said comparing, determining all objects deemed to be subject specific relevant as objects to be saved;

an indexer of said search engine indexing the plurality of said objects determined to be subject specific relevant to said particular subject based upon said filtering; and

an assigner of said search engine for assigning a word score to each word appearing on each subject specific relevant object;

wherein said assigning a word score comprises the steps of:

determining all relevant websites found in memory that contain links to the website;

for each word on the websites, assigning a word score for that word based at least in part on its presence on each website containing a list to the website; and

increasing the word score for each website containing a link to the website when the word appears in close proximity to the link.

~~a memory, connected to the host computer, for storing the plurality of said objects determined to be subject specific relevant.~~

47. (Previously presented) The system according to Claim 46, wherein said filtering is performed by a first lexicon based filter.

48. (Previously presented) The system according to Claim 47, wherein the lexicon is stored on an interchangeable computer-readable storage medium.

49. (Canceled)

50. (Previously presented) The system according to Claim 46, wherein the system further comprises a human-computer interface, and comprises:

device for presenting said subject specific relevant objects received from the smart crawler to a human editor via the human-computer interface; and

device for receiving input from the human editor, entered via the human-computer interface, regarding whether to index and store said subject specific relevant objects in the memory.

51. (Previously presented) The system according to Claim 47, further comprising at least a second filter performing one or more operations of the first filter.

52-53. (Canceled)

54. (Withdrawn) A method of ranking the relevance of information stored in a database, the information comprising web pages, the method comprising the steps of:

computing and storing a word ranking for each word, except for stop words, found on each web page; and

in response to a user query, computing a site ranking for each web page found in response to the user query based on the word rankings.

55. (Withdrawn) The method according to Claim 54, wherein the step of computing a word ranking is performed according to how interesting at least one of authors and users of a computer network in which each web page is resident have found the web page.

56. (Withdrawn) The method according to Claim 54, wherein the step of computing a word ranking comprises the step of:

for each word, except stop words, on each web page, determining all web pages found in the database that contain links to the web page on which the word appears; and

assigning a word score for that word based at least in part on its presence on each web page containing a link to the web page on which that word appears, the word score constituting the word ranking for that word.

57. (Withdrawn) The method according to Claim 56, wherein the step of assigning a word score for that word further comprises the step of increasing the word score for each web page containing a link to the web page on which that word appears if the word appears in close proximity to the link.

58. (Withdrawn) The method according to Claim 54, wherein the step of computing a site ranking comprises the steps of:

for each web page found in response to the user query, summing the word rankings for that web page corresponding to words in the user query.

59. (Withdrawn) A computer-readable medium containing software implementing the method of Claim 54.

60-61. (Canceled)

62. (Currently amended) A computer-implemented method of implementing a subject specific search engine to compile and access subject specific information, associated with a predefined particular subject, from a computer network, the method comprising the steps of:

traversing links between websites comprising one or more objects on the computer network, by said search engine, the objects respectively comprising at least one of: one or more web pages comprising the websites; and one or components comprising any one or more of said web pages, the objects comprising at least one of: words, terms and expressions;

filtering, by said search engine, subject specific content of each said object visited to determine relevance of said subject specific content thereof to said predefined particular subject, wherein said filtering comprises:

(a) decomposing said objects into one or more said components;

(b) receiving a lexicon, said lexicon comprising subject specific terminology deemed relevant to the predefined particular subject, the subject specific terminology comprising respective words, terms and expressions;

(c) comparing said decomposed components of said objects to said subject specific terminology of the lexicon to determine whether each said object is a subject specific relevant object, wherein said comparing comprises:

(i) assigning a weight to each of said words, terms and expressions comprising the subject specific terminology of the lexicon;

(ii) if a said word, term or expression comprising the object matches a corresponding said word, term or expression comprising the subject specific terminology of the lexicon, adding a corresponding weight thereof to a cumulative total; and

(iii) determining any of said objects to be a subject specific relevant object if the cumulative total surpasses a predefined threshold value;

(d) based upon said comparing, determining all objects deemed to be subject specific relevant as objects to be passed to a second filter, wherein said second filter comprises:

(aa) presenting one or more of said components of each of said objects to a human editor via a human computer interface;

(bb) permitting the human editor to deem a said object to be a subject specific relevant object if the human editor determines any of said components comprising said object to be within said predefined particular subject;

(cc) permitting the human editor to deem a said object to not be a subject specific relevant object if the human editor determines any of said components comprising said object to not be within said predefined particular subject; and

(dd) based upon said (bb) and (cc), determining all objects deemed to be subject specific relevant as objects to be saved;

presenting for an indexing operation at said search engine, each object determined to be subject specific relevant to said predefined particular subject based upon said filtering.

63. (Currently amended) A computer-implemented method of implementing a subject specific search engine to compile and access subject specific information, associated with a predefined particular subject, from a computer network, the method comprising the steps of:

traversing links between websites comprising one or more objects on the computer network, by said search engine, the objects respectively comprising at least one of: one or more web pages comprising the websites; and one or components comprising any one or more of said web pages, the objects comprising at least one of: words, terms and expressions;

filtering, by said search engine, subject specific content of each said object visited to determine relevance of said subject specific content thereof to said predefined particular subject, wherein said filtering comprises

(a) decomposing said objects into one or more said components;

(b) ~~generating-receiving~~ a lexicon, said lexicon comprising subject specific terminology deemed relevant to the predefined particular subject, the subject specific terminology comprising respective words, terms and expressions;

(c) comparing said decomposed components of said objects to said subject specific terminology of the lexicon to determine whether each said object is a subject specific relevant object, wherein a said object is deemed to be a subject specific relevant object if at least one component thereof matches a corresponding subject specific terminology of the lexicon;

(d) based upon said comparing, determining all objects deemed to be subject specific relevant as objects to be saved;

presenting for an indexing operation at said search engine, each object determined to be subject specific relevant to said predefined particular subject based upon said filtering;

indexing and storing said subject specific relevant objects in a searchable database; and
assigning a word score to each word appearing on each subject specific relevant object;
wherein said assigning a word score comprises the steps of:

determining all websites found in the database that contain links to the website;

for each word on the websites, assigning a word score for that word based at least in part on its presence on each website containing a list to the website; and

increasing the word score for each website containing a link to the website when the word appears in close proximity to the link.

64. (Previously presented) The method according to Claim 1, further comprising indexing the totality of objects determined to be subject specific relevant to yield a subcategory of objects.

65. (Previously presented) The method according to Claim 64, wherein the objects are websites, the computer network comprises the Internet, and the subcategory of objects comprises a portion of the Internet (Internet').

66. (Previously presented) The method according to Claim 28, further comprising performing a searching operation upon the Internet'.